

FORM PTO-1390 (Modified) U.S. PATENT AND TRADEMARK OFFICE; U.S. DEPARTMENT OF COMMERCE  
(REV. 7-2005)

ATTORNEY'S DOCKET NUMBER

## TRANSMITTAL LETTER TO THE UNITED STATES

DNI-0025

DESIGNATED/ELECTED OFFICE (DO/EO/US)

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

CONCERNING A SUBMISSION UNDER 35 U.S.C. 371

10/553,931

INTERNATIONAL APPLICATION NO.

PCT/US2004/013339

INTERNATIONAL FILING DATE

30 April 2004 (30.04.2004)

PRIORITY DATE CLAIMED

30 April 2003 (30.04.2003)

TITLE OF INVENTION

TUBULAR SIGNAL TRANSMISSION DEVICE AND METHOD OF MANUFACTURE

APPLICANT(S) FOR DO/EO/US

James Bayliss; Ernest L. Gladden; Joseph W. Twarog, Jr.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☐ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☒ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.
4. ☐ The US has been elected (Article 31).
5. ☐ A copy of the International Application as filed (35 U.S.C. 371 (c)(2))
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☐ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
11. ☐ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☐ A copy of the International Search Report (PCT/ISA/210).

## Items 13 to 23 below concern document(s) or information included:

13. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☐ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ A substitute specification.
18. ☐ A power of attorney and/or change of address letter.
19. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.
20. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
21. ☐ A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).
22. ☐ Express Mail Label No.

U.S. APPLICATION NO (if known, see 37 CFR 1.5) <b>10/553,931</b>	INTERNATIONAL APPLICATION NO. <b>PCT/US2004/013339</b>	ATTORNEY'S DOCKET NUMBER <b>DNI-0025</b>
23. Other items or information:  <b>Certificate of Mailing</b> <b>Return Receipt Postcard</b>		
The following fees have been submitted: 24. <input type="checkbox"/> Basic national fee ..... <b>\$300</b>		<b>CALCULATIONS</b> <b>PTO USE</b>
25. <input type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . . <b>\$0</b> All other situations. . . . . <b>\$200</b>		\$ <b>\$0.00</b>
26. <input type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the International preliminary examination report by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . . <b>\$0</b> Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the as an International Searching Authority. . . . . <b>\$100</b> International Search Report prepared by an ISA other than the US and provided to the previously communicated to the US by the IB. . . . . <b>\$400</b> All other situations. . . . . <b>\$500</b>		\$ <b>\$0.00</b>
<b>TOTAL OF 24, 25 and 26 =</b>		\$ <b>\$0.00</b>
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(i)). The fee is <b>\$250</b> for each additional 50 sheets of paper or fraction thereof.		
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole)
- 100 =	0 /50 =	0
		x \$250.00
		\$ <b>\$0.00</b>
Surcharge of <b>\$130.00</b> for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).		\$
CLAIMS	NUMBER FILED	NUMBER EXTRA
Total claims	- 20 =	0
Independent claims	- 3 =	0
		x \$200.00
		\$ <b>\$0.00</b>
MULTIPLE DEPENDENT CLAIMS (if applicable) <input type="checkbox"/> + \$360.00		\$ <b>\$0.00</b>
<b>TOTAL OF ABOVE CALCULATIONS =</b>		\$ <b>\$0.00</b>
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.		\$ <b>\$0.00</b>
<b>SUBTOTAL =</b>		\$ <b>\$0.00</b>
Processing fee of <b>\$130.00</b> for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).		\$ <b>\$0.00</b>
<b>TOTAL NATIONAL FEE =</b>		\$ <b>\$0.00</b>
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). <b>\$40</b> per property +		\$ <b>\$0.00</b>
<b>TOTAL FEES ENCLOSED =</b>		\$ <b>\$0.00</b>
		Amount to be \$
		Amount to be \$

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

- a. ☐ A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c. ☐ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. \_\_\_\_\_. A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

Customer No. 23413  
Attn: Victor E. Libert  
Cantor Colburn LLP  
55 Griffin Road South  
Bloomfield, CT 06002  
Tel: (860) 286-2929  
Fax: (860) 286-0115

  
SIGNATURE

Victor E. Libert

NAME

24,224

REGISTRATION NUMBER

March 9, 2006

DATE

**CERTIFICATE OF MAILING BY FIRST CLASS MAIL (37 CFR 1.8)**Applicant(s): **James Bayliss et al.**

Docket No.

**DNI-0025**

Application No.

**10/553,931**

Filing Date

**10/20/2005**

Examiner

**NYA**

Customer No.

**23413**

Group Art Unit

**NYA**Invention: **TUBULAR SIGNAL TRANSMISSION DEVICE AND METHOD OF MANUFACTURE**I hereby certify that this **Information Disclosure Statement, as detailed below***(Identify type of correspondence)*

is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope

addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on

**March 9, 2006***(Date)***Michelle E. Fetzner***(Typed or Printed Name of Person Mailing Correspondence)**(Signature of Person Mailing Correspondence)***Note: Each paper must have its own certificate of mailing.**

1. Transmittal Letter to the DO/EO/US
2. Transmittal of Information Disclosure Statement (Under 37 CFR 1.97(b) or 1.97(c))
3. Information Disclosure Statement Under 37 CFR §§ 1.56, 1.97 and 1.98
4. Form PTO/SB/08a and PTO/SB/08B, Information Disclosure Statement by Applicant
5. One Foreign Patent Document
6. 7 Non-Patent Documents
7. PCT International Search Report and Written Opinion received in PCT/US04/13339
8. PCT International Preliminary Examination Report received in PCT/US04/13339
9. Return Receipt Postcard

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: James Bayliss et al. )  
Serial No.: 10/553,931 ) Group Art Unit: NYA  
Filing Date: 10/20/2005 ) Examiner: NYA  
For: TUBULAR SIGNAL TRANSMISSION DEVICE AND )  
METHOD OF MANUFACTURE )

Mail Stop Amendment  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §§ 1.56, 1.97 AND 1.98**


Dear Sir:

In compliance with the duty to disclose, submitted herewith are forms PTO/SB/08a and PTO/SB/08B listing publication(s) of which those persons designated by 37 CFR § 1.56 are believed to be aware. Copies of cited documents other than United States patents and published applications are enclosed.

The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made, or an admission that the information cited is, or is considered to be, material to patentability.

Respectfully submitted,

CANTOR COLBURN LLP

By:   
Victor E. Libert  
Registration No. 24,224

Date: March 9, 2006  
Customer No.: 23413  
Telephone: (860) 286-2929

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
Application Number		10/553,931			
Filing Date		10/20/2005			
First Named Inventor		James Bayliss			
Art Unit		NYA			
Examiner Name		NYA			
Attorney Docket Number		DNI-0025			
Sheet	1	of	4		

U.S. PATENT DOCUMENTS						
Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
		US- 1,964,390		06-26-1934	J. Stuart, 2D	
		US- 2,416,639		02-25-1947	David E. Pearsall	
		US- 2,963,971		12-13-1960	C. F. Horne	
		US- 3,027,839		04-03-1962	A. J. Grandy et al.	
		US- 3,590,739		07-06-1971	Per-Anders Persson	
		US- 3,730,096		05-01-1973	Josef Prior	
		US- 4,220,087		09-02-1980	Posson	
		US- 4,244,900		01-13-1981	Heider	
		US- 4,288,262		09-08-1981	Flanagan et al.	
		US- 4,290,366		09-22-1981	Janoski	
		US- 4,328,753		05-11-1982	Kristensen et al.	
		US- 4,402,270		09-06-1983	McCaffrey	
		US- 4,493,261		01-15-1985	Simon et al.	
		US- 4,607,573		08-26-1986	Thureson et al.	
		US- 4,660,474		04-28-1987	Dias dos Santos	
		US- 4,699,059		10-13-1987	Kelly et al.	
		US- 4,756,250		07-12-1988	Dias dos Santos	
		US- 4,757,764		07-19-1988	Thureson et al.	
		US- 4,817,673		04-04-1989	Zoghby et al.	
		US- 4,838,165		06-13-1989	Gladden et al.	

FOREIGN PATENT DOCUMENTS								
Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind <sup>5</sup> (if known)				
		WO	01/08937 A1		02-08-2001	Autoliv Development AB		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
Application Number	10/553,931				
Filing Date	10/20/2005				
First Named Inventor	James Bayliss				
Art Unit	NYA				
Examiner Name	.NYA				
Attorney Docket Number	DNI-0025				
Sheet	3	of	4		

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
		US- 5,597,973		01-28-1997	Gladden et al.	
		US- 5,616,883		04-01-1997	Hamilton et al.	
		US- 5,625,162		04-29-1997	Appleby	
		US- 5,629,493		05-13-1997	Andersson et al.	
		US- 5,681,904		10-28-1997	Manzara	
		US- 5,827,994		10-27-1998	Gladden et al.	
		US- 5,837,924		11-17-1998	Austin	
		US- 5,844,322		12-01-1998	Andersson et al.	
		US- 5,945,627		08-31-1999	Arpin et al.	
		US- 6,006,671		12-28-1999	Yunan	
		US- 6,170,398		01-09-2001	Rabotinsky et al.	
		US- 6,347,566		02-19-2002	Rabotinsky et al.	
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind <sup>5</sup> (if known)				

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Application Number</b>	10/553,931
				<b>Filing Date</b>	10/20/2005
				<b>First Named Inventor</b>	James Bayliss
				<b>Art Unit</b>	NYA
				<b>Examiner Name</b>	NYA
<b>Sheet</b>	4	<b>of</b>	4	<b>Attorney Docket Number</b>	DNI-0025

<b>OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Sartomer Product Bulletin: SR-238, 1,6 Hexanediol Diacrylate, 2027 R. 12/98	
		Anthony P. Manzara, 3M Specialty Chemicals Division, "A New Cure System For Azido Polymers", Approved for public release April 1996, 8 pages.	
		<a href="http://www.chemicaland21.com/arokorhi/specialtychem/perchem/N-BUTYRYL%20CHL...">http://www.chemicaland21.com/arokorhi/specialtychem/perchem/N-BUTYRYL%20CHL...</a> , 4/15/2004, N-BUTYRYL CHLORIDE (BUTANOYL CHLORIDE), "n-BUTYRYL CHLORIDE", 2 pages.	
		<a href="http://search.chemexper.com/_KFPNKUMHFTNBQNKQNQNMPOLQOE_?for=ccd&amp;sea...">http://search.chemexper.com/_KFPNKUMHFTNBQNKQNQNMPOLQOE_?for=ccd&amp;sea...</a> 4/15/2004, Poly(vinyl butyral), 1 page	
		Rob Hunter and Tony Manzara, 3M Performance Materials, "Interaction of Glycidyl Azide Polymer Plasticizer With Other Polymers", 8 pages, facsimile-transmitted April 26, 2002.	
		3M Industrial Products Division, "technical data Glycidyl Azide Polymer Polyol L-12369 (Experimental), issued December, 1991, 2 pages.	
		3M Industrial Products Division, "technical data Glycidyl Azide Polymer Polyol L-12616 (Experimental), issued April, 1992, 2 pages.	
		PCT International Search Report and Written Opinion received in corresponding PCT Application No. PCT/US04/13339, dated 06 January 2005, 9 pages.	
		PCT International Preliminary Examination Report on Patentability received in corresponding PCT Application No. PCT/US04/13339, dated 04 November 2005, 5 pages.	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.  
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.